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C A B B A G E

Y E L L O W S

**"The Most Destructive and Widespread
Cabbage Disease!"**

This new edition of our descriptive catalogue of Yellows Resistant cabbage seed is of deep interest to the trade for it contains up-to-date information on progress made in combatting what is probably the most destructive and widespread malady afflicting this crop. The money loss imposed by this disease is enormous.

Instead of diminishing, "Yellows" is spreading; it is found in nearly all of the large producing areas in Central and Eastern states and more recently is spreading rapidly in sections as far south as Florida, Mississippi, and Texas, west as far as Colorado, and it is gradually creeping farther north within Minnesota, Wisconsin, Michigan, and New York. There is no telling where this dreaded disease will make its appearance, but it is certainly spreading to new land, and once the soil is infested, no amount of rotation, soil treatment, or seed treatment will control it.

"Yellows" is caused by a thread-like organism belonging to the fungi or mushroom family and has the capacity of thriving either on living plants of the cabbage family or on any dead vegetation in the soil, thus enabling the organism to live indefinitely.

The Only Control Is

To Grow Yellows Resistant Cabbage

The WISCONSIN CABBAGE SEED COMPANY is the only organization devoted exclusively to the development and improvement of Yellows Resistant strains. We are carrying on in

a commercial way the Yellows Resistant work started in 1910 by Professor L. R. Jones of the University of Wisconsin and continued by Dr. J. C. Walker of the same university. Each new development is approved by the University experts before it is offered to the trade.

When Professor Jones was called in to investigate the disease, he very soon discovered the only remedy was to develop new strains resistant to the Yellows. Up to the present time, Professor Jones, Dr. Walker and co-workers have developed most of the varieties now in use. The production of Kraut varieties was financially supported by members of the National Kraut Packers Association.

When these resistant strains were released by the University of Wisconsin, it was necessary that they be kept in a highly resistant form, and made available to the trade. The WISCONSIN CABBAGE SEED COMPANY was then organized for this purpose. The work is directed by a plant pathologist especially trained under Dr. Walker. The company maintains extensive breeding grounds and an air-conditioned warehouse in the heart of the Yellows area of Racine County, Wisconsin.

This catalogue presents the story to the highly important Yellows Resistant work from inception to the present day. The company is devoting all its energy, resources and scientific applications available to this one commodity in an endeavor to supply the trade with strains of uniform type and quality; to keep Resistance at the highest point possible; and to breed new strains. A new strain requires from 8 to 10 years to develop.

WISCONSIN CABBAGE SEED CO.
Racine, Wisconsin

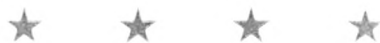
WISCONSIN CABBAGE SEED CO.
Racine, Wisconsin

WISCONSIN CABBAGE SEED CO., INC.

Breeders and Growers

RACINE, WISCONSIN, U. S. A.

Specializing exclusively in Yellows Resistant strains • • • Ask for samples for your Trial Plot



Trial plot on Yellows-sick soil at Racine, Wisconsin. To the left and right are various Resistant strains surviving. Note center two check rows of commercial strains gone out with the "Yellows."



LEFT • Racine Market; note the small plants with large, round uniform heads; Mature.

RIGHT • Marion Market; Larger plants maturing 10 days later than Racine Market.





JERSEY QUEEN

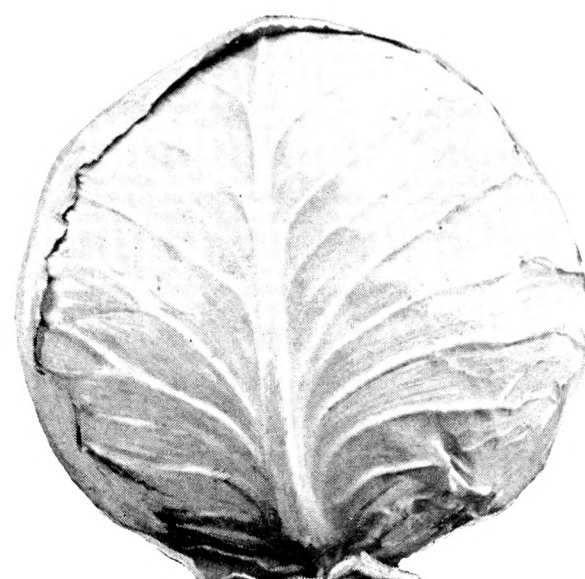
*55 days • Selected from Jersey Wakefield variety with which it remains identical in type and season. Leaves smooth and dark-green. Heads pointed, small and compact, permitting close planting. Ideal for truck gardening and is an excellent shipper. 98 to 100% resistant.

*Days from setting of plants to maturity as determined under favorable conditions in Wisconsin.

RACINE MARKET

*60 days • Selected from Copenhagen Market and is similar in leaf and head type except that leaf color is gray-green rather than yellow-green. It is dependably early and uniform, heads are round, solid, and of superior quality. An excellent short-season type for early shipper or early kraut. 98 to 100% resistant.

*Days from setting of plants to maturity as determined under favorable conditions in Wisconsin.



MARION MARKET

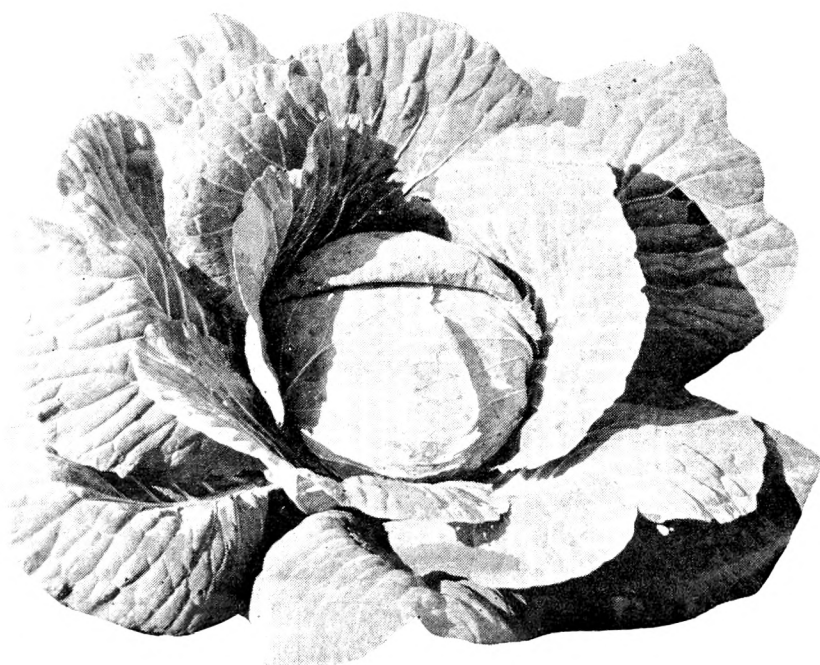
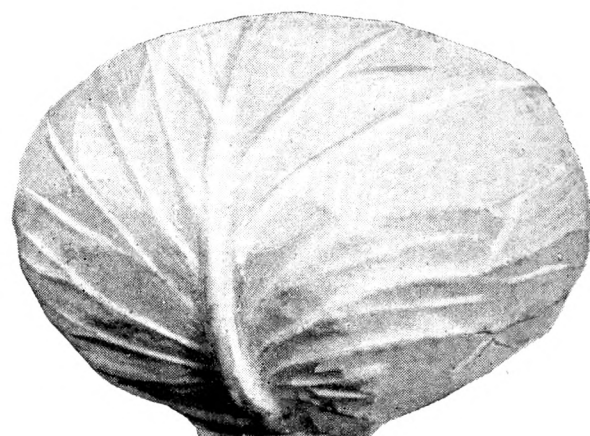
*70 days • Selected from Copenhagen Market, but later in maturity and more blue-green foliage; heads are larger and a heavier yielder than Copenhagen Market; round head and very compact. The most popular of all Yellows Resistant strains. An excellent mid-season cabbage for market or kraut. 95 to 100% resistant.

*Days from setting of plants to maturity as determined under favorable conditions in Wisconsin.

GLOBE

*75 days • Selected from Glory of Enkhuizen. A fine mid-season, round-head type, maturing a few days later than Marion Market. The heads are globular, very compact; small core. Plant and head type are very uniform. Heavy yielder; widely used for kraut as well as for shipping. 95 to 100% resistant.

*Days from setting of plants to maturity as determined under favorable conditions in Wisconsin.



ALL-HEAD SELECT (IMPROVED)

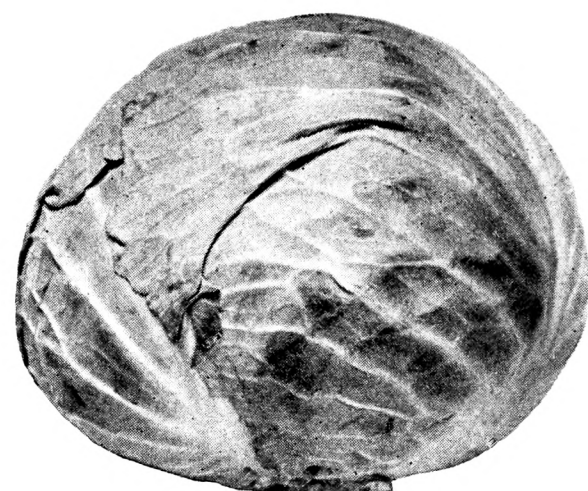
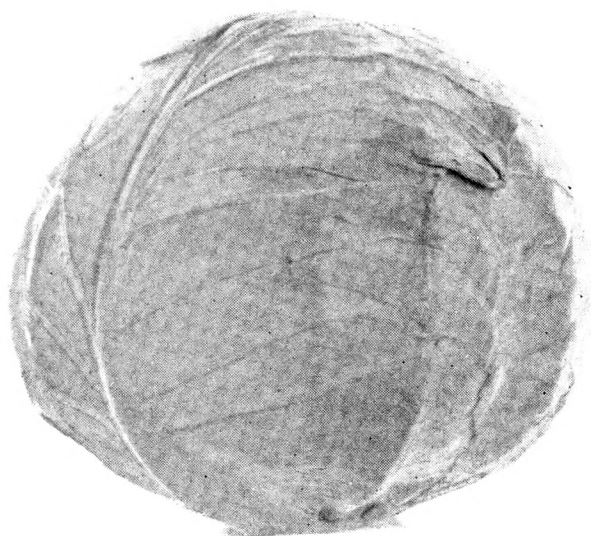
*65 days • Selected from All Head Early. We now have greatly improved this strain over the first All-head Select strain introduced in 1927. Plants large and extremely uniform in leaf and head development. Produces large firm heads, flat to slightly rounded across the top. This strain is tender, excellent for table use. Ideal for southern shipping market and early sauerkraut in the North. 95 to 100% resistant.

*Days from setting of plants to maturity as determined under favorable conditions in Wisconsin.

WISCONSIN ALL-SEASON

*90 days • Selected from All Seasons. Late maturing, drum-head variety, suitable for fall market in the North and the southern winter crop. Widely used in the North for the late pack of sauerkraut. This strain is exceptionally hardy and will withstand drought, hot weather, and insect infestation unusually well. Shows great resistance to the cabbage Mosaic (virus) disease. Very heavy yielder. This strain is very highly resistant to Yellows.

*Days from setting of plants to maturity as determined under favorable conditions in Wisconsin.



WISCONSIN BALLHEAD

*85 days • Selected from Danish Ballhead and practically identical in type and season. Round, solid, compact head; short stem; blue-green foliage. Suitable in the North for early fall shipping, and when planted as to mature late is suitable for storage. Heads smaller but more uniform than Wisconsin Hollander; will produce equal tonnage if planted closer. Very uniform in type and maturity so that over 90% can be harvested at the first cutting. 97 to 100% resistant.

*Days from setting of plants to maturity as determined under favorable conditions in Wisconsin.

WISCONSIN HOLLANDER

*90 to 100 days • Selected from Danish Ballhead. The first strain of Yellows Resistant cabbage seed released by the University of Wisconsin, and now greatly improved as to type, quality and resistance since the first introduction. Heads round, becoming slightly flattened across the top; color blue-green. This strain is a very heavy yielder but not as uniform in maturity and size as the Wisconsin Ballhead. An ideal cabbage for storage and for shipping. Highly resistant to the Yellows.

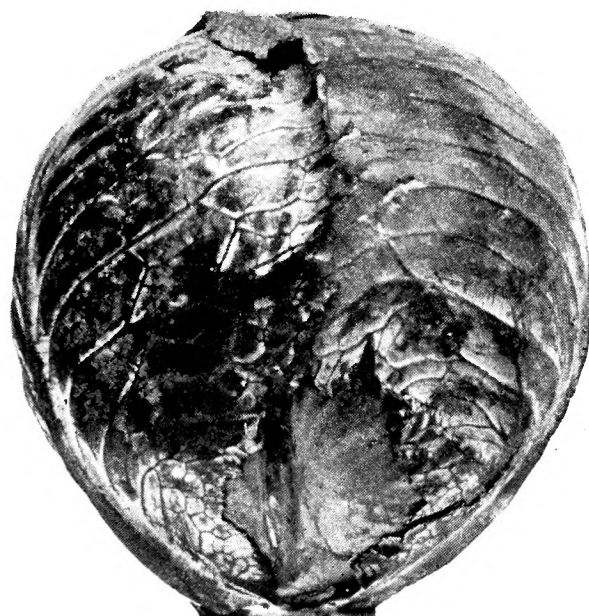
*Days from setting of plants to maturity as determined under favorable conditions in Wisconsin.

WISCONSIN CABBAGE SEED CO.

RESISTANT DETROIT

*55 days • Conforms in type with Copenhagen Market from which it was selected. Heads are globular to slightly flattened. Contains about 80% resistance.

*Days from setting of plants to maturity as determined under favorable conditions in Wisconsin.



RED HOLLANDER

*100 days • A round-head, late red cabbage, very uniform, foliage purple-red, with heads becoming a deeper color with maturity. Heads are solid and compact from formation to maturity, permitting early cutting if desired. Ideal late fall shipper and a good storage cabbage. Highly resistant to the Yellows

*Days from setting of plants to maturity as determined under favorable conditions in Wisconsin.



Order your seed in 1 lb.
bags . . . Save your loss
by repackaging.

- 1** Section of greenhouse showing the breeding of new resistant strains and improvement of the present varieties.
- 2** Typical stock seed plant grown on Yellows sick soil.
- 3** Breeding grounds where the seed produced in the greenhouse is checked, and the undesirable and susceptible plants are eliminated. Note the bamboo stakes marking "Sick" plants, also 2 rows commercial strains (non-resistant) practically wiped out by the disease, proving that the soil of the trial grounds is heavily infested with the "Yellows."





Ten acre field of GLOBE on Yellows sick soil in Illinois. Note heavy yield, large, round, uniform heads.

CAN YOU PROPERLY IDENTIFY CABBAGE DISEASES?

These five are the principal ones.

CABBAGE YELLOWS

Symptoms: The foliage appears lifeless and a yellowish green color. Leaves usually become curled or warped, later becoming dry with a bluish-black cast, followed by a pre-matured dropping of the lower leaves. Death of entire plant usually results. When base of leaves or stems of invaded plants are cut across, the woody rings appear brown.

Cause: A soil-borne organism which is capable of living indefinitely in the soil after once present. Not seed-borne.

Control: The only control is through the use of Yellow Resistant strains of cabbage seed.

BLACK ROT

Symptoms: Plants may be affected at any stage of development. Foliage first becomes yellowed in small areas, followed by a spread and blackening of the veins. Often passes from leaves into the stem and thus to other parts of the plant. Affected leaves gradually turn brown, die, and drop off prematurely. The woody rings of the stem become blackened in contrast to the browning as is the case with Yellows. Often confused with Yellows.

Cause: A bacterium which winters over in plant debris, in the soil, and seed. Seed-borne.

Control: Use Western grown seed; Western grown seed is not known to carry either Black Rot or Black Leg. Hot water seed treatment. In the North, practice a two to three-year rotation.

BLACK LEG

Symptoms: First appear as small discolored sunken areas on the stem, usually at the surface of the ground. These gradually enlarge, killing the base of the stem, causing the plant to wilt and die; without premature dropping of leaves.

On the leaves of older plants appear irregular grayish spots, becoming dry and covered with minute raised black specks. (The fruiting bodies of the fungus).

Cause: An organism which over-winters in plant debris, in the soil, and seed. Seed-borne.

Control: Same as used for Black Rot.

CABBAGE MOSAIC

The cabbage mosaic disease has recently become of major importance in some areas. Symptoms are characterized on young cabbage as general vein clearing beginning at the margin, followed by mottling and then death. Infected leaves express a variety of patterns from isolated small dead areas to diffused and larger areas throughout the leaf and veins. Defoliation in the field is common. In mature heads internal spotting or speckling is found throughout. Diseased plants are much weakened and may succumb as a result.

Control: Eradicate winter host (Shepards-Purse). Aphids (plant lice) carry and spread the disease in the field, and from winter host to cabbage. Control aphids. Will not over-winter on the dead plants. As yet not proven to be seed borne.

CLUB ROOT

Symptoms: Enlarged lumps on main root and on fibre roots. Outer leaves, particularly the lower ones, hang down during hot dry weather. Plant eventually wilts and dies.

Cause: A soil-borne organism which lives for a number of years in the soil. Attacks many members of the cabbage family.

Control: Liming the seed bed is a necessary precaution. Liming the field controls in some cases; but a definite control has not yet been discovered. It is not seed-borne. Rotate with other crops for several years. Do not use plants from infested seed bed. Eradicate weeds belonging to the cabbage family.